

2999  
M210

LIBRARY  
JAN 10 1986  
O. A. R. D. C.

1985

MUSKMELON CULTIVAR EVALUATION TRIALS

Dale W. Kretchman, Mark A. Jameson, and Charles C. Willer

Department of Horticulture  
The Ohio State University  
Ohio Agricultural Research and Development Center

639  
Oh3

This page intentionally blank.



## Muskmelon Cultivar Evaluation Trials for 1985

Dale W. Kretchman, Mark A. Jameson, and Charles C. Willer  
Department of Horticulture  
The Ohio State University  
Ohio Agricultural Research and Development Center

Muskmelon cultivars were evaluated during the summer of 1985 at the Ohio Agricultural Research and Development Center Vegetable Crops Branch near Fremont. Six lines and hybrids were compared in replicated plots. Sixteen lines and hybrids were observed in non-replicated plots.

### Cultural Information

Plant Growing: Seeds were sown in 2 1/4 in. sq. peat pots on May 8. Pots contained a mixture of 1/3 each, soil, peat and sand. Two plants were grown per pot. Plants were field set by hand on June 3.

Field Culture: 600 lbs/A of 10-20-20 was broadcast and worked in prior to planting and laying the plastic. Four-ft. wide, 1.5 mil black plastic mulch was laid on 6 ft. centers immediately before transplanting. Rows were 30 ft. long and the 2-plant pots were spaced 30 in. apart. There were 4 replications of each cultivar in the replicated trial. One-half pint of starter solution of 1 qt/55 gal. of 10-34-0 was added to each hill at planting. All other cultural practices during the season were according to standard recommendations.

<u>Rainfall:</u>	June 3 to 30	1.67 in.
	July to	2.69 in.
	August	3.79 in.
	to September 9	.51 in.

Irrigation: June 29, 1.00 in.

Harvest: Started August 12 and continued through September 9.

### Results and Discussion

Results are presented in Tables 1-3. There are obvious differences in earliness, total yield, soluble solids (sugars) in juice expressed from the fruit flesh and in appearance. Burpee Hybrid and Gold Star hybrid, cultivars grown widely in Ohio performed well and had excellent quality. Superstar, a large fruited hybrid had the highest yield in the replicated trial, but fruit quality was considerably lower than either Burpee Hybrid or Gold Star due to poor uniformity in shape and lower sugars. NXH-877 was late, a western-type melon with unacceptable quality when grown under Ohio conditions. HXP-3592 cracked at the stem-end had very non-uniform shape and great variability in flavor. Market Star also had considerable fruit cracking and did not yield well.

No exceptionally outstanding lines were found in the observational trial except for "Classic", although there appears to be some difference between the two seed sources. However, one must keep in mind that this is a non-replicated trial and reliability of results are not as high as with adequate replication. This cultivar

has been grown previously and it is adapted to Ohio and recommended for commercial production. The flavor of "Earli-Sweet" was also not rated as high as in past trials. This is a very early, but very small melon that could provide an early start for on-farm retail markets.

#### Seed Source

Cultivar or Line	Lot No.	Source
Burpee Hybrid	6137	W. Atlee Burpee Co., Philadelphia, PA
Bush Star	001-113	Petoseed Co., Saticoy, CA
Classic	001-014	Petoseed Co., Saticoy, CA
Classic	0149010	Agri-Seed & Chem. Corp., Metamora, MI
Durrine	7-002	Royal Sluis, Enkhuizen, Holland
Earli-Sweet	----	Agri-Seed & Chem. Corp., Metamora, MI
Gold Star	562-5989	Harris-Moran Seed Co., Rochester, NY
Market Star	----	Agri-Seed & Chem. Corp., Metamora, MI
Roadside	----	Agri-Seed & Chem. Corp., Metamora, MI
Saticoy	001-004	Petoseed Co., Saticoy, CA
Star Headliner	241	Otis Twilley Seed Co., Inc., Trevoise, PA
Star Performer	239	Otis Twilley Seed Co., Inc., Trevoise, PA
Supermarket	----	Agri-Seed & Chem. Corp., Metamora, MI
Superstar	577-46043	Harris-Moran Seed Co., Rochester, NY
NVH-877	----	Agri-Seed & Chem. Corp., Metamora, MI
XHP-3592	6064	Harris-Moran Seed Co., Rochester, NY
XP-673	56987	Agway, Inc., Prospect, PA
PSX-E680	001-106	Petoseed Co., Saticoy, PA
PSR-7483	----	Petoseed Co., Saticoy, PA
PSR-8883	----	Petoseed Co., Saticoy, PA
PSR-10183	----	Petoseed Co., Saticoy, PA
HXP-3006	----	Harris-Moran Seed Co., Rochester, NY

All publications of the Ohio Agricultural Research and Development Center are available to all on a nondiscriminatory basis without regard to race, color, national origin, sex or religious affiliation.

12/85-S444/200

TABLE 1. Harvest date, yield, grade and fruit size of muskmelon, Replicated Trial, Fremont - 1985.

Cultivar	Early Yield for Period 8/14-24				Season Total Yield				Fruit SS(%)
	First	Marketable Fruit			Marketable Fruit			Fruit	
	Harvest	cwt/	Size	%	Cwt/	Size	%	Time	
	Date	A	(lbs)	Culls	A	(lbs)	Culls	1	
Burpee Hybrid	8-14	103.7	4.2	1.4	472.6	3.9	1.9	13.8	13.6
Gold Star	8-19	88.0	4.2	1.3	492.7	3.8	1.3	13.4	13.4
Superstar	8-14	197.9	6.5	2.1	564.2	5.8	1.5	11.3	11.4
NVH-877	9-3	0.0	0.0	0.0	186.1	4.5	2.7	7.2	7.2
XHP-3592	8-14	344.4	4.9	0.8	558.0	4.7	1.8	12.8	8.9
Market Star	8-21	<u>29.5</u>	<u>3.7</u>	<u>25.0</u>	<u>259.2</u>	<u>3.7</u>	<u>11.0</u>	13.4	13.0
LSD 5%		135.7	---	---	110.8	---	2.74		

TABLE 2. Harvest date, yield, grade and fruit size of muskmelon - Observational Trials, Fremont - 1985.

Cultivar	Early Yield for Period 8/12-22				Season Total Yield				Fruit SS(%)	
	First	Marketable Fruit			Marketable Fruit			Time	Time	
	Harvest Date	Cwt/A	Size (lbs)	% Culls	Cwt/A	Size (lbs)	% Culls	1	2	
XP-673	8-12	201.3	3.6	21.4	421.0	3.6	23.4	10.8	15.4	
Saticoy	8-26	0.0	0.0	0.0	399.3	4.2	7.2	14.0	14.9	
PSX-E680	8-16	41.6	2.4	25.2	411.4	3.8	8.7	13.2	13.8	
Classic (Petoseed)	8-19	105.5	4.4	0.0	394.5	4.3	15.3	11.0	10.0	
Bush Star	8-12	126.0	4.0	19.8	244.4	3.4	25.6	11.2	11.2	
Star Performer	8-19	15.9	3.3	26.7	646.1	2.8	3.2	13.4	13.0	
Star Headliner	8-19	41.8	4.3	19.1	481.6	4.4	13.7	13.0	12.8	
Roadside	8-12	46.2	6.4	43.0	428.3	5.2	31.3	13.6	12.6	
Earli-Sweet	8-12	382.3	2.1	7.2	648.0	2.3	9.1	10.5	10.2	
Classic (Agri-Seed)	8-19	107.4	4.4	0.0	450.0	4.0	9.8	13.4	11.0	
Supermarket	8-16	24.4	5.0	49.7	387.2	3.6	20.3	12.0	13.0	
Durrine	8-23	0.0	0.0	0.0	336.3	4.3	16.1	13.2	14.0	
PSR-7483	8-16	42.1	5.8	0.0	399.3	5.2	19.6	15.0	15.0	
PSR-8883	8-21	13.7	5.7	60.7	220.9	4.8	54.6	10.0	10.0	
PSR-10183	8-12	273.4	6.3	40.5	515.4	6.4	33.4	8.0	10.0	
HXP-3006	8-19	56.1	5.8	0.0	438.0	4.3	10.6	12.2	13.2	

TABLE 3. Observations on external characteristics

Cv or Line	Comments
Burpee Hybrid	Deeply ribbed, deep netting, uniform, nearly round shape, excellent flavor.
Gold Star	Deeply ribbed, deep netting, uniform, nearly round shape, excellent flavor.
Superstar	Ribbed, deep netting, poor shape, bland flavor
NVH-877	Shallow ribbed, shallow netting, light color, western type melon
HXP-3592	Cracks at stem, ribbed, non-uniform shape, fair to good netting, light salmon flesh color, bland flavor
Market Star	Shallow green ribbing, severe cracks at stem end, soft melon, deep salmon flesh color, bland flavor.
XP-673	Very shallow ribbing, heavy net, western type, very sweet flavor.
Saticoy	Shallow ribbing, protruding stem end, late melon, fair to good flavor.
PSX-E680	Very shallow ribbing, heavy net, fair to good flavor.
Classic (Petoseed)	Deeply ribbed, heavy netting, looks good, flavor not as good as in previous years.
Bush Star	Deeply ribbed, heavy netting, deep salmon flesh color, oblong shape, flavor rated as fair.
Star Performer	Shallow ribbing, heavy netting, western type melon, flavor not exceptional.
Star Headliner	Deeply ribbed, heavy netting, cracks at stem end, good flavor.
Roadside	Large melon, smooth, deeply ribbed, little netting, fair flavor.
Earli Sweet	Shallow ribbing, fine heavy net, small melon, flavor much poorer than previous years.
Classic (Agri-Seed)	Heavily netted, ribbed, good internal color, excellent flavor.
Supermarket	Ribbed, med. netting, smaller than normal, excellent flavor.
Durrine	Deeply ribbed, moderately netted, cracks at stem end, oblong, bland flavor, late melon.
FSR-7483	Ribbed, oblong, shallow non-uniform netting, flavor rated poor.
PSR-8883	Ribbed, oblong, heavy net, flavor rated very poor.
PSR-10183	Deeply ribbed, heavy net, surface cracks, very bland flavor, light salmon flesh color.
HXP-3006	Deeply ribbed, thick open net, flavor rated good.

This page intentionally blank.



This page intentionally blank.

This page intentionally blank.